

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-37. (Canceled)

38. (Currently amended) A method of enhancing a ~~leukocyte~~ lymphocyte mediated or immunoglobulin mediated immune response to a vaccine against an infectious disease, in a mammal in need thereof, wherein the enhancement is compared to a lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease after administration of the vaccine alone, comprising administering to the mammal a therapeutically effective amount of Escherichia coli heat labile enterotoxin B subunit (EtxB), wherein the EtxB is free from whole toxin and is not linked to an antigen and co-administering the vaccine, thereby enhancing the lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against an infectious disease compared to the lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against an infectious disease after administration of the vaccine alone.

39. (Previously presented) The method according to claim 38, wherein the EtxB increases the levels of B and T cell lymphocyte response.

40. (Previously presented) The method according to claim 38, wherein the antigen is a virus antigen from the herpes virus family.

41. (Previously presented) The method according to claim 40, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

42. (Previously presented) The method according to claim 41, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.

43. (Currently amended) The method according to claim 38, wherein the vaccine is said ~~EtxB is administered to the said mammalian subject in conjunction with administration of an antigen, and wherein the EtxB is not linked to the antigen.~~

44. (Previously presented) The method according to claim 43, wherein the said EtxB and antigen are administered to the said mammalian subject in an amount which is effective to increase the mammalian subject's levels of B and T cell lymphocyte response to the antigen.

45. (Canceled)

46. (Currently amended) The method according to claim 41, wherein the vaccine is said ~~EtxB is administered to the said mammalian subject in conjunction with administration the virus antigen, and wherein the EtxB is not linked to the antigen.~~

47. (Previously presented) The method according to claim 46, wherein the said EtxB and virus antigen are administered to the said mammalian subject in an amount which is effective to increase the mammalian subject's levels of B and T cell lymphocyte response to the antigen.

48. (Canceled)

49. (Currently amended) A method of enhancing a ~~leukocyte~~ B and T cell lymphocyte mediated or immunoglobulin mediated immune response to a vaccine against an infectious disease, in a mammal in need thereof, wherein the enhancement is compared to a lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease after administration of the vaccine alone, comprising administering Escherichia coli heat labile enterotoxin B subunit (EtxB) in conjunction with administration of an antigen associated with an infectious disease, wherein the EtxB is free from whole toxin and is not linked to the antigen, to the mammal in an amount which is effective to increase the mammalian subject's

levels of B and T cell lymphocyte response to the antigen and co-administering the vaccine, thereby enhancing the B and T cell lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease compared to the lymphocyte mediated or immunoglobulin mediated immune response to the vaccine against the infectious disease after administration of the vaccine alone.

50. (Previously presented) The method according to claim 49, wherein the antigen is a virus antigen from the herpes virus family.

51. (Previously presented) The method according to claim 50, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

52. (Previously presented) The method according to claim 51, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.

53. (Canceled)

54. (New) A method of generating a lymphocyte mediated or immunoglobulin mediated immune response, in a mammal in need thereof, comprising administering to the mammal a between 50 and 100  $\mu$ g of Escherichia coli heat labile enterotoxin B subunit (EtxB), wherein the EtxB is free from whole toxin and an antigenic determinant, wherein the EtxB and antigenic determinant are not linked to form a single active agent.

55. (New) The method of claim 54, wherein the EtxB and antigenic determinant are administered to the mammal in need thereof in multiple doses.

56. (New) The method according to claim 54, wherein the EtxB increases the levels of B and T cell lymphocyte response.

57. (New) The method according to claim 54, wherein the antigenic determinant is a virus antigen from the herpes virus family.
58. (New) The method according to claim 57, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).
59. (New) The method according to claim 58, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.
60. (New) A method of enhancing a B and T cell lymphocyte mediated or immunoglobulin mediated immune response, in a mammal in need thereof, comprising administering between 50 and 100  $\mu$ g of Escherichia coli heat labile enterotoxin B subunit (EtxB) in conjunction with administration of an antigenic determinant associated with an infectious disease, wherein the EtxB is free from whole toxin and is not linked to the antigen, and wherein the EtxB and antigenic determinant are not linked to form a single active agent.
61. (New) The method of claim 60, wherein the EtxB and antigenic determinant are administered to the mammal in need thereof in multiple doses.
62. (New) The method according to claim 60, wherein the antigenic determinant is a virus antigen from the herpes virus family.
63. (New) The method according to claim 62, wherein the virus antigen is an antigen of a virus selected from the group consisting of Herpes Simplex Virus-1 (HSV-1), Herpes Simplex Virus-2 (HSV-2), Epstein-Barr Virus (EBV), Varicella-zoster Virus (VZV), Cytomegalovirus (CMV), Human Herpes Virus-6 (HHV-6), Human Herpes Virus-7 (HHV-7) and Human Herpes Virus-8 (HHV-8).

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64. (New) The method according to claim 63, wherein the virus antigen is an antigen of a virus selected from the group consisting of HSV-1, HSV-2, CMV or EBV.